

WHAT IS CLAIMED IS:

1 1. A voltage generator arrangement, comprising:
2 a first connection for a supply potential;
3 a second connection for a reference ground potential; and
4 a first output connection for an output potential to be tapped off;
5 a first reference ground potential line, the first reference ground potential line being
6 connected to the second connection;
7 a second reference ground potential line, the second reference ground potential line
8 being connected to the second connection;
9 a bandgap reference circuit, the bandgap reference circuit being connected to the first
10 reference ground potential line having a second output connection;
11 a voltage generator, the voltage generator being connected between the first
12 connection and the second reference ground potential line, the second reference ground line
13 being connected on the output side to the first output connection to be tapped off, on the input
14 side, having a control input for controlling the magnitude of the output potential; and
15 a correction circuit, the correction circuit being connected to the first and second
16 reference ground potential lines, being coupled on the input side to the bandgap reference
17 circuit, and having a third output connection, the third output connection being coupled to the
18 input of the voltage generator and carrying a control signal, the control signal being
19 dependent upon the potential difference between the first and second reference ground
20 potential lines.

1 2. The voltage generator arrangement as claimed in claim 1, further comprising:

2 an impedance converter circuit, the impedance converter circuit being connected to
3 the first reference ground potential line and having an input/output signal path connected
4 between the output of the bandgap reference circuit and an input of the correction circuit.

1 3. The voltage generator arrangement as claimed in claim 1, wherein the
2 correction circuit has a linearly superimposing circuit to linearly superimpose a signal which
3 is dependent on the potential difference between the potentials of the first and second
4 reference ground potential lines on a signal which is produced by the bandgap reference
5 circuit.

1 4. The voltage generator arrangement as claimed in claim 3, wherein the bandgap
2 reference circuit, the impedance converter circuit and the correction circuit are connected on
3 the supply voltage side to the first connection for the supply potential.

1 5. The voltage generator arrangement as claimed in claim 1, wherein the second
2 reference ground potential line is a longitudinally extending line which is connected at a first
3 end to the connection for the external supply of the reference ground potential, and which is
4 connected at a second end to the voltage generator, and
5 wherein the correction circuit contacts the second reference ground potential line
6 closer to the second end than to the first end.

1 6. The voltage generator arrangement as claimed in claim 5, wherein the
2 correction circuit contacts the second reference ground potential line proximate to a point at
3 which the voltage generator is connected to the second reference ground potential line.

1 7. The voltage generator arrangement as claimed in claim 1, wherein the
2 correction circuit has a first operational amplifier, which is connected as an inverting adder
3 and which is coupled on the input side to the bandgap reference circuit and to the second
4 reference ground potential line.

1 8. The voltage generator arrangement as claimed in claim 7, wherein the
2 correction circuit has a second operational amplifier, which is connected as an inverting
3 amplifier and is coupled on the input side to an output of the first operational amplifier.

1 9. The voltage generator arrangement as claimed in claim 1, wherein the voltage
2 generator includes a comparator, which is connected on the output side to the control input of
3 a load transistor, wherein the load transistor is connected between the connection for the
4 supply potential and the output connection for the output potential to be tapped off, and
5 wherein a voltage divider is provided, is connected between this output connection and the
6 second reference ground potential line, and has a tap which is fed back to an input of the
7 comparator.

1 10. The voltage generator arrangement as claimed in claim 2, wherein the
2 correction circuit has a linearly superimposing circuit to linearly superimpose a signal which
3 is dependent on the potential difference between the potentials of the first and second
4 reference ground potential lines on a signal which is produced by the bandgap reference
5 circuit.

1 11. The voltage generator arrangement as claimed in claim 10, wherein the
2 bandgap reference circuit, the impedance converter circuit and the correction circuit are
3 connected on the supply voltage side to the first connection for the supply potential.